

Title (en)
MIXTURE OF OLIGOMERIC PHENAZINIUM COMPOUNDS AND ACID BATH FOR ELECTROLYTICALLY DEPOSITING A COPPER DEPOSIT

Title (de)
MISCHUNG AUS OLIGOMEREN PHENAZINIUM-VERBINDUNGEN UND SÄUREBAD FÜR ELEKTROLYTISCHE ABLAGERUNG EINER KUPFERABLAGERUNG

Title (fr)
MELANGE DE COMPOSES DE PHENAZINIUM OLIGOMERES ET BAIN ACIDE POUR LE DEPOT PAR VOIE ELECTROLYTIQUE D'UN REVETEMENT DE CUIVRE

Publication
EP 1592825 A1 20051109 (EN)

Application
EP 03813565 A 20031209

Priority
• EP 0313994 W 20031209
• DE 10261852 A 20021220

Abstract (en)
[origin: US2006226021A1] For the reproducible manufacturing of particularly uniform and brilliant i.e., highly bright copper coatings that are leveled and ductile as well, a copper plating bath is utilized that contains as an additive a mixture of oligomeric phenazinium compounds. The mixture contains at least one phenazinium compound selected from the group comprising compounds containing two monomeric units and compounds containing three monomeric units having the general chemical formulae <I> and <II> set forth in the patent claims and in the specification as well as further oligomeric phenazinium compounds.

IPC 1-7
C25D 3/38; **C25D 7/12**

IPC 8 full level
C25D 3/38 (2006.01); **C25D 7/12** (2006.01); **H01L 21/288** (2006.01); **H05K 3/42** (2006.01)

CPC (source: EP KR US)
C07D 241/46 (2013.01 - KR); **C25D 3/38** (2013.01 - EP KR US); **C25D 7/12** (2013.01 - EP KR US); **H01L 21/2885** (2013.01 - EP KR US); **H05K 3/423** (2013.01 - KR); **H05K 3/423** (2013.01 - EP US)

Citation (search report)
See references of WO 2004057061A1

Cited by
US8691987B2; US8735580B2

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

DOCDB simple family (publication)
US 2006226021 A1 20061012; **US 7872130 B2 20110118**; AT E426693 T1 20090415; AU 2003296632 A1 20040714; BR 0316358 A 20050927; BR 0316358 B1 20130205; CA 2502717 A1 20040708; CA 2502717 C 20111018; CN 1729312 A 20060201; CN 1729312 B 20120509; DE 10261852 B3 20040603; DE 60326885 D1 20090507; EP 1592825 A1 20051109; EP 1592825 B1 20090325; ES 2322052 T3 20090616; JP 2006512480 A 20060413; JP 4352004 B2 20091028; KR 101094117 B1 20111215; KR 20050085841 A 20050829; MX PA05006782 A 20050908; TW 200508209 A 20050301; TW I313679 B 20090821; WO 2004057061 A1 20040708

DOCDB simple family (application)
US 53828605 A 20050705; AT 03813565 T 20031209; AU 2003296632 A 20031209; BR 0316358 A 20031209; CA 2502717 A 20031209; CN 200380107006 A 20031209; DE 10261852 A 20021220; DE 60326885 T 20031209; EP 0313994 W 20031209; EP 03813565 A 20031209; ES 03813565 T 20031209; JP 2004561264 A 20031209; KR 20057011603 A 20031209; MX PA05006782 A 20031209; TW 92135371 A 20031215